

Patent Abstracts of Japan

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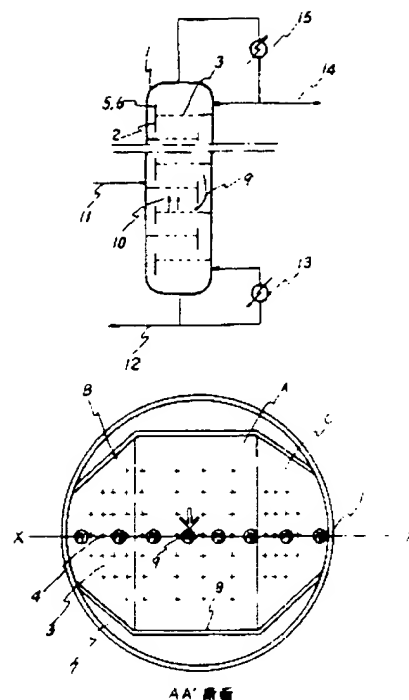
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APPLICANT : MITSUBISHI HEAVY IND LTD;

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TITLE : VAPOR-LIQUID CONTACT
APPARATUS



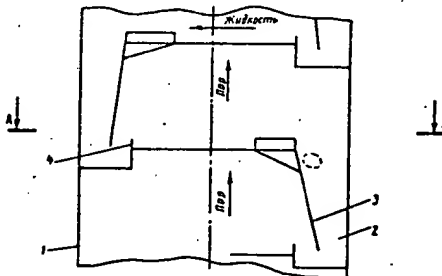
ABSTRACT : PURPOSE: To prevent the decrease in the efficiency of vapor-liquid contact by making the number of holes near the walls provided on plates larger than that in the central part.

CONSTITUTION: Plates 3 are trisected to the area A sandwiched by linear weirs 8 and the areas B, C sandwiched by auxiliary weirs 7 and the number of holes is made larger on the tower wall sides B, C than that in the central part A. Even if with the apparatus constituted in this way the rate of liquid flow flowing down into a downcomer 2 beyond the auxiliary weirs 7 is high, distillation has progressed more near the tower walls than in the central part and therefore said liquid becomes of the same composition as that of the liquid flowing down into the downcomer 2 beyond the linear weirs 8. Since the number of holes near the tower walls is greater, the upward gas current 10 passing near the tower walls increases and the downward liquid flow on the trays 3 is blown away and is corrected in the central part of the trays 3, thus the liquid depth distribution on the trays 3 becomes even. Hence, the entire downward liquid flow 9 has the same residence time and therefore the degradation in performance owing to oscillation of the tower may be prevented.

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873088/48 J01 MOLO/14.05.76 MOLOKANOV YU K *SU-652-947 14.05.76-SU-360244 (28.03.79) B01d-03/20	J(1-A2).
Heat- and mass-transfer unit - has base with contact and outflow elements with longer overflow line using curved partitions with straight slits	example: in the case of a meandering overflow partition, made semicircular with straight-line slits, the length of the overflow line is increased by more than $2\frac{1}{2}$ times compared with a straight overflow partition. The way in which the gas(vapour) is released, and the angle of the gulleys, contribute to the increased productivity also. (3pp29)
<p>Plate for heat- and mass-transfer apparatus of high productivity, comprising base with contact elements to allow the gas(vapour) to pass through, plus an overflow device contg. elements through which the liquid flows out.</p> <p>Effectiveness of the plate is increased by increasing the length of the overflow line, and improving the degassing conditions of the liquids, during their multistage flow, by making the elements as gulleys, with each mounted in the sides of the overflow devices at an angle of 10-45°.</p> <p>OPERATION</p> <p>The liquid comes on to the plate through an overflow partition. The height of liquid on the plate is determined by the height of the overflow partitions, and the head of liquid above them. The high liquid layer is the cause of the fall of the liquid and uneven plate operation, the height of the layer on the suggested plate is reduced with a drop in the lead of liquid, by lengthening the overflow line. For</p>	

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